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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,083	02/03/2006	Mirko Kreitschmann	284209US0PCT	2336
22850 7590 01/09/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER NILAND, PATRICK DENNIS	
			ART UNIT	PAPER NUMBER
			1714	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/567,083

Applicant(s)

KREITSCHMANN ET AL.

Examiner

Patrick D. Niland

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combinations of the teachings of US Pat. No. 6518389 Kaufhold et al., US Pat. Application Publication No. 2001/0053841 Kaufhold et al., US Pat. Application Publication No. 2003/0055158 Konig et al., US Pat. No. 5789528 Martl et al., JP 2003-192783 A Hofacker et al. (translation of relevant portion referenced), and EP 0293253 A1 Ramey et al..

Hoffacker, at section [0005]-[0007] of the supplied translation of the DETAILED DESCRIPTION shows titanium catalysts to give yellowing. Martl et al., column 1, lines 65-67 shows titanium catalysts to give yellowing in polyesters generally, which would include the instantly claimed piperidiny succinates and the polyester portions of the instantly claimed thermoplastic polyurethanes, of which polyester polyols make up a major portion of these polyurethanes used commercially. Konig, table at page 4 shows titanium catalysts to give more yellowing than other catalysts, though the catalyst of example 3 only gives yellowing above 100C under the conditions of the tests. However, this is expected to be within the temperatures typical thermoplastic polyurethanes are processed at and does not account for further yellowing after the test period and within the service life of the polyurethane article, which is often undesired, as seen from the preponderance of the art and the art's use of negative terms such as "discoloration" regarding the yellowing effect.

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It is well known in the art to use the instantly claimed piperidine/succinate polymers as polymeric HALS for thermoplastic polyurethanes as taught by both of the cited Kaufhold references, particularly noting the disclosed Tinuvin 622 which the applicant shows to contain slightly more Ti than allowed by the instant claims.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the lowered amounts of titanium compounds as taught by Martle, column 4, lines 21-28 or to avoid them all together, such as by using the transesterification catalysts of Hofacker et al. or the non-Ti transesterification catalysts of Ramey et al. in making the polyester polyols and the poly piperidiny succinates used in the polyurethane compositions of the prior art, so as to avoid the yellowing of the composition due to the titanium as taught by the above cited prior art in making the polyester moieties of both the polyester polyols used to make the polyurethanes of the patentee and the poly piperidiny succinate stabilizers of the prior art so as to eliminate this form of yellowing in the prior art urethanes and articles made therefrom.


Column 10, lines 22-27 of Kaufhold (389) reads on the instant claim 3 and column 10, lines 56 reads on the instant claim 2. Column 10, line 13 reads on the instant claims 6-7 and lines 56 reads on claim 8. Column 9, line 27 reads on the articles of claim 10. Column 10, lines 11-12, 31-33, and 56 fall within the scope of the instant claims 3-5.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Patrick D. Niland  
Primary Examiner  
Art Unit 1714